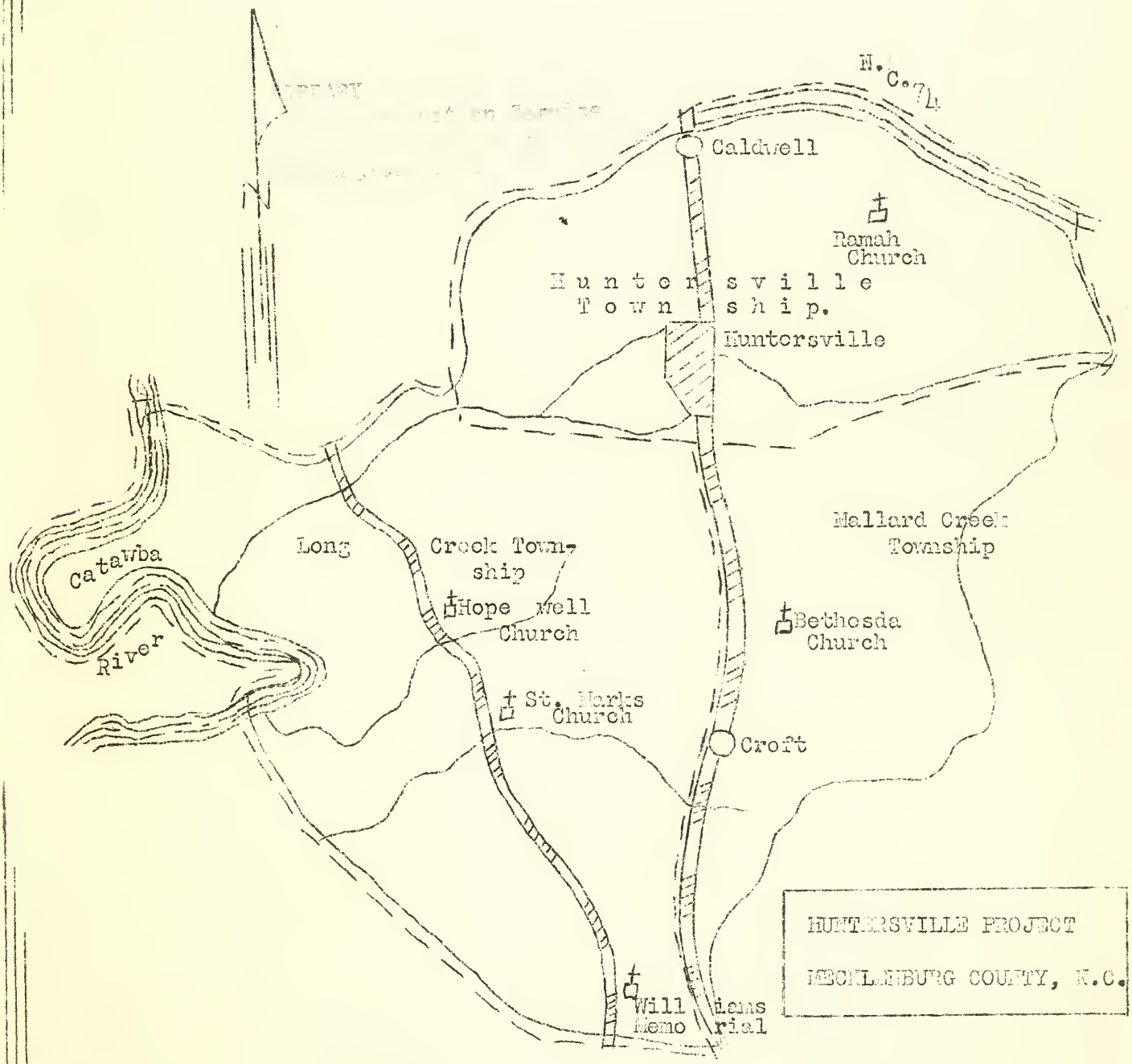
THE CONSERVATIONIST

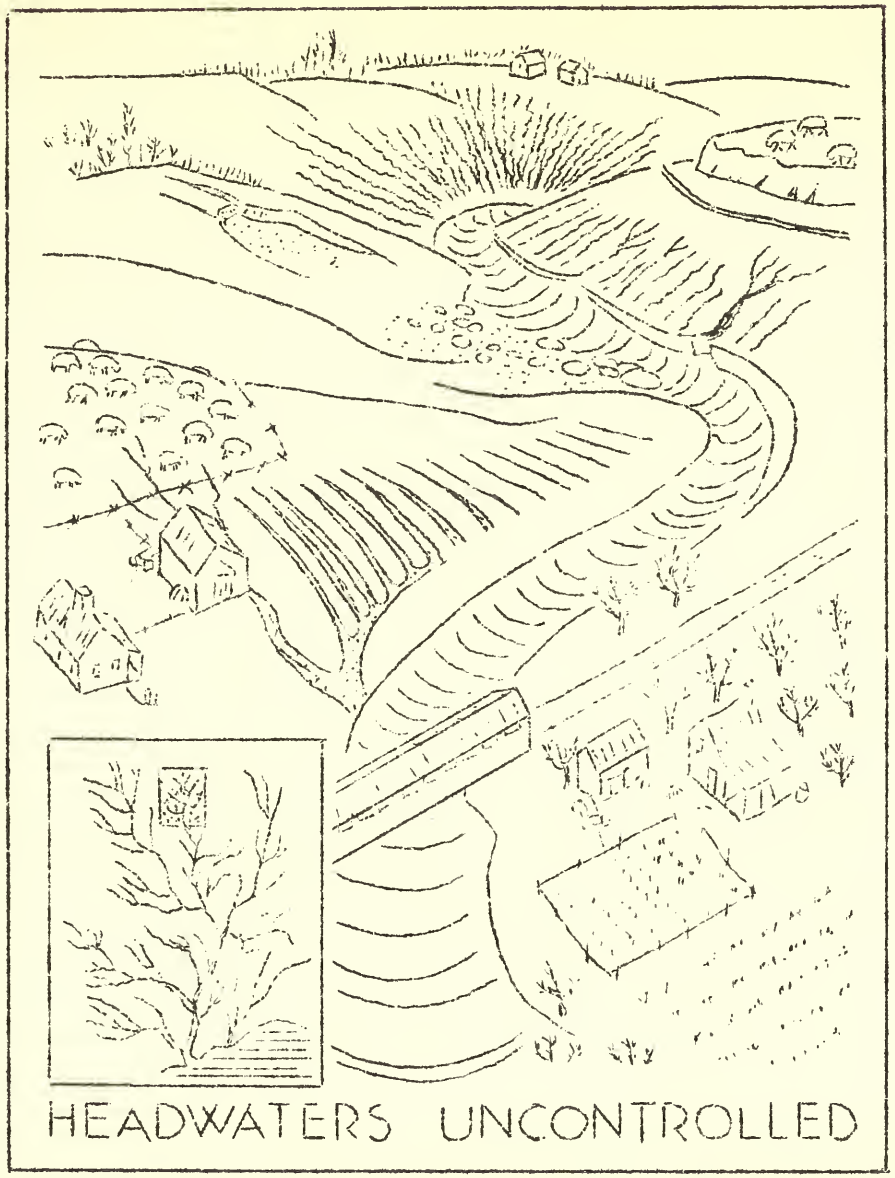
CHARLOTTE, N.C.

April, 1936 Vol. 1. No. II

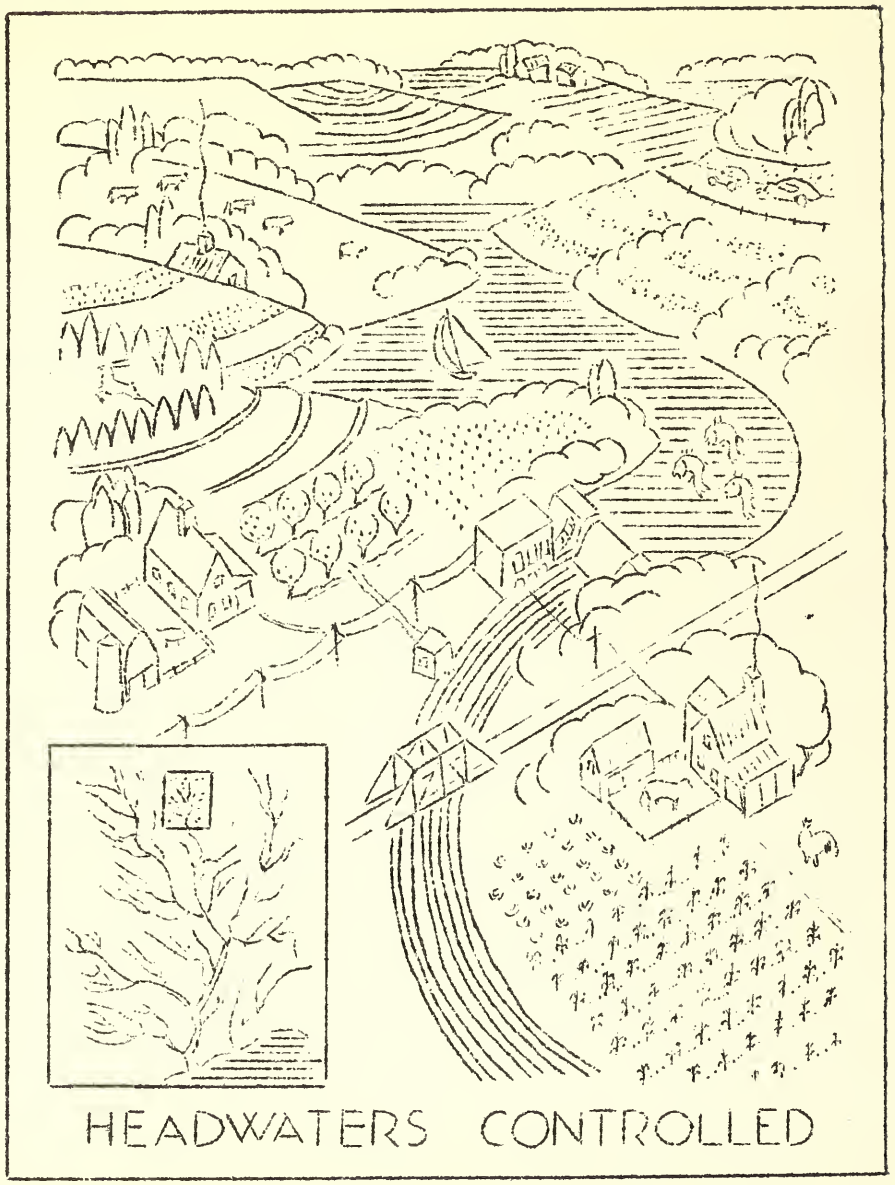


HUNTERSVILLE PROJECT

MECKLENBURG COUNTY, N.C.



HEADWATERS UNCONTROLLED



HEADWATERS CONTROLLED

WHICH WILL BE YOUR CHILDREN'S HOME?

(Credit to "Little Waters").

THE CONSERVATIONIST is a bulletin to be issued at regular intervals throughout the year by the staff of the Soil Conservation Service in Charlotte, N. C. It is our intent to use this publication for the purpose of telling the citizens of this area what we are doing and to keep them posted on all developments concerning erosion control and farm management. We hope in this bulletin you will find the spirit of cooperation that we endeavor to maintain in all our relations with the farmers.

STAFF OF THE SOIL CONSERVATION SERVICE
CHARLOTTE, N. C.

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Dr. J. H. Stallings, State Coordinator
A. A. Cone, Acting Project Manager

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H. G. Bivens	Assistant Clerk
Maude P. Overstreet	Junior Clerk
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W. D. Alexander, Jr.	Asst. Engineering Draftsman

FORESTRY

W. G. Patterson	Assistant Forester

WILDLIFE CONSERVATION

Sydney Franklin	Junior Biologist

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The Cover.

The cover of our booklet shows a map of the Huntersville Demonstration Area. This, it will be observed, includes approximately 54,000 acres of land, in which are included the townships of Huntersville, Long Creek and a part of Mallard Creek. Of this 54,000 acres, the Soil Conservation Service is permitted to work only the first 25,000 put under agreement. From this map the farmer should be able to determine whether or not his farm is included in the demonstration area.

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OUR PROGRAM

A. A. Cone

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The worn out cultivated lands of Mecklenburg County and Piedmont North Carolina are in their present condition because the surface soil has washed away and not because of over-cropping.

The program which we are endeavoring to sponsor is to bring together in a coordinated plan of attack, the known methods of erosion control so that the maximum results may be obtained in conserving the surface soil. Such a program includes a soil survey which furnishes the basic information on which to proceed, and other improved practices which may be summarized as follows: Crop rotations that improve and conserve the soil; strip cropping; construction of terraces; terrace outlets; wildlife development, gully control and retirement of steep areas to forests and permanent pasture.

The services which we have to offer are available to every land owner in the demonstrational area. Those wishing to take advantage of such services may do so by contacting any of our representatives in the field, visiting the project office, or by addressing a communication to the Soil Conservation Service, P. O. Box 329, Charlotte, N. C.

It is impossible to give in detail here, just how much we can do on a given farm. Such details are worked out on the farm by the land owner and the agreement man who is our representative. It can be said, however, that the Soil Conservation Service will cooperate with each farmer on a 50-50 basis in getting a soil saving program under way. We will furnish certain materials, supplies and equipment where this is at least offset by a similar contribution made by the farmer.

Changes are made in contracts from time to time when such changes are deemed wise and constructive. We feel that due consideration and careful planning should enter into the writing of each agreement, after studying the needs and conditions on the different farms. Such a procedure results in effective control programs, is more satisfactory to both the farmer and the Government, and eliminates the possibility of so many future changes.

This publication is sent you with the hope that we may become better acquainted, and that you may receive information bearing on the subject of soil conservation.

Please be assured that it will be a pleasure to work with you at all times.

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"UP TO NOW"

J. C. Shiver.

Up to April 1, 1936, 48 cooperative agreements have been signed by farmers in the Huntersville Demonstrational area. The number of acres covered by these agreements is 4,677 of which 2,000 were in cultivation under methods which have prevailed for many years before these contracts were signed.

Over 6,272 acres have been completed by the detailed erosion survey; and of this amount 2,447 acres are in need of erosion control treatment. The number of acres under treatment and finished totals 504.2; of which treatment actually finished amounts to 190.7 acres.

The farmers in the area to date have agreed to retire from cultivation a total of 345 acres; and 209 acres have actually been retired thus far. The acreage to be retired to permanent hay and pasture amounts to 354 acres; and that to forest totals 208 acres.

Prior to the inauguration of the activities of the Soil Conservation Service in this area not a single acre had been strip cropped, but since the S. C. S. program began some five months ago farmers have agreed to strip crop 1,230 acres: Up to now over 2,000 acres are under contract to practice contour tillage. Prior to the S. C. S. program the practice of contour tillage was not a very general practice.

Approximately 589 acres in the area covered by the 48 agreements has been terraced before the start of the erosion control program. At the present time agreements call for new terracing or reterracing on more than 1032 acres. The bad weather of the past few months has handicapped greatly the work of the terracing crews in the county, but it is hoped that many miles will be constructed when better weather arrives. Already a total of 364 permanent and 89 temporary terrace outlet structures have been completed; 2,230 sq. yards of terrace outlets have been seeded and sodded; and 18,961 linear ft. of terrace outlet channels completed.

Extensive gully control work has been under way in this area as follows: 605 temporary dams and two permanent dams constructed; 2,219 sq. yards of bank sloped; and 1,154 linear ft. of water spreading dykes completed. Of a total of 1,700 acres placed under contract for the carrying out of proper rotations, 1,630 acres to date have been started on this rotation system. Very little contour furrowing in pastures has been done in this area, but at the present time agreements call for 44 acres to be contour furrowed.

More than 150 acres of land have been set aside for tree planting. Of this amount, about 75 acres are gullied, and the remainder, better land, removed from cultivation or pasture. There are 29.8 acres under the direct supervision of the Forestry Department, 22.8 of which have received an improvement cutting.

In wildlife management organization can boast of the following: 205,000 shrubs and trees planted for the benefit of wildlife, over 15 acres of gullied and galled spots seeded to lespedeza, about 50 acres set aside for food patches, and 48 farms cooperating in wildlife conservation.

To date the following have signed Cooperative Agreements:

C. F. Alexander

Mrs. C. F. Alexander

Jas. R. Alexander

W. E. Alexander, Sr.

J. R. Beard

Mrs. R. L. Blythe

H. G. Bradford

M. C. Bradley

John G. Caldwell

W. F. Caldwell

Dr. Thomas Craven

Joe G. Davidson

J. F. Ewart

F. A. Hamilton

A. R. Henderson (2 farms)

E. W. Henderson

R. E. Henderson

J. Frank Houston

A. C. Hucks

O. W. Hunter

W. M. Hunter

L. W. Johnston

Rufus M. Johnston

J. B. Kidd

J. M. Knox

R. F. Knox

W. M. Knox (2 farms)

J. C. Love

C. F. Mayberry

A. B. McAuley

R. A. McConnell

O. T. Parks

J. F. Patterson

J. L. Puckett

Don Ranson

Don H. Ranson

Lacy Ranson & Bros.

J. L. Ross

H. F. Sherrill

L. J. Stillwell

R. F. Vance

W. M. Vance

J. W. Washam

J. H. Wilson

W. P. Wilson

Mrs. J. J. Withers

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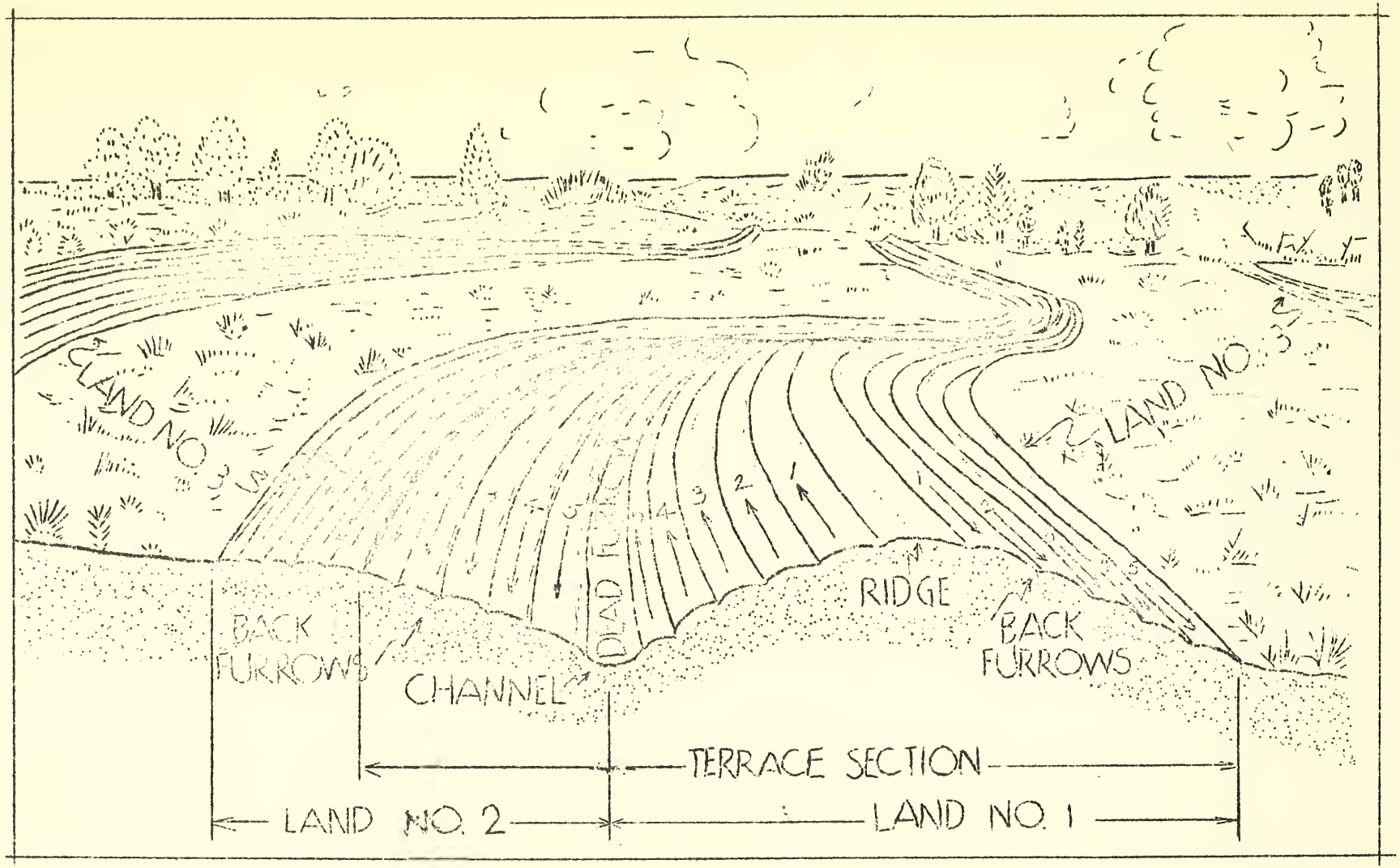
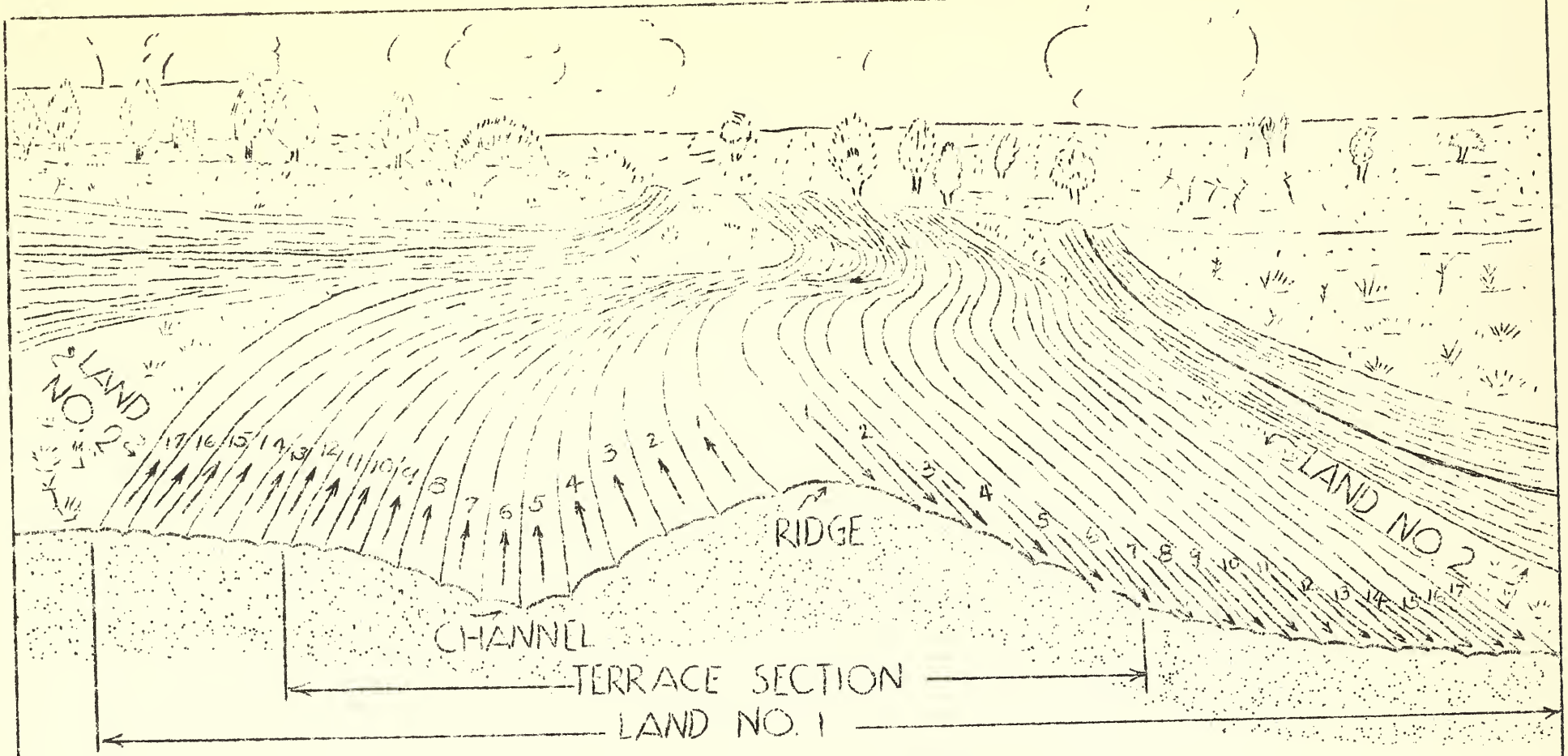


METHOD OF MAINTAINING TERRACES BY PLOWING

1. Land #1. Start back furrow at terrace ridge throwing all rows toward ridge.
2. Land #2. Start back furrow 6' to 10' above channel throwing all rows uphill out of the channel.
3. Land #3. The remaining unbroken strip can be broken as a separate land.

NOTE: Land #2 must be varied from year to year to prevent building a ridge above channel.



METHOD OF MAINTAINING TERRACES BY PLOWING
(Optional Method)

Start back furrow at terrace ridge throwing all rows toward ridge. Continue plowing until approximately midway between terraces, the remaining small areas to be plowed as separate lands. The finishing furrow should be varied by listing more to one side than the other from year to year to prevent low places forming between terraces. This method will have a tendency to fill up channel, and after breaking it may be necessary to brush out channel with light grader or home-made drag.

"Engineering Enlightenment"

H. R. Tribou

Terraces can be either a valuable asset or a damaging liability to a farm, depending on their design, construction and maintenance. Certainly it is more desirable to have no terraces at all than to have them improperly laid out and constructed. In the Piedmont region alone there are thousands of acres of one-time terraced land that are completely ruined because of poor terraced construction and maintenance.

The usual fault with improper terraces is too much fall in the flow line. In this one phase alone many terraces defeat their own purpose. The terraces are constructed to take the excess water off the field gradually. If too much fall is given in the terrace flow line (causing the water to flow to rapidily) it is doing exactly the thing it was put in to eliminate, and that is, soil washing. Same can also be said of terraces with poorly protected outlets or outlets spaced too far apart.

Almost all of the terraces in the area are too small. This is due mainly to poor and insufficient equipment with which to throw up a terrace, and improper methods of plowing up the terrace ridge. On the preceeding pages of this bulletin are shown two methods of plowing up the terrace. Illustration No. 1 is considered the better method as it keeps the flow line cleaned, maintains a higher terrace ridge, and tends to widen the terrace flow line. Illustration No. 2 can be used if desired.

"A Point of Information"

The Soil Conservation Service has obtained a tractor and terracer for constructing terraces in the demonstration area. Since the arrival of this equipment the question has arisen from cooperators in the area as to just what land will be terraced.

The answer to this question is this: the terracing equipment was obtained for this project for the purpose of making small demonstrations on as many farms as possible. The size of the demonstration will depend on the size of the field and on the total amount of land to be terraced by this equipment. The staff engineers of the project will decide what farms and fields will be used for the demonstrations. It is the purpose of the Service, however, to have demonstrations on as many farms as possible.

The Soil Conservation Service has borrowed four Martin terracers to be used in constructing terraces. These terracers are to be used with what power the cooperator has on his farm. However, at least two or more horses will be required to operate one of these terracers satisfactorily.

"THE PLACE OF WILDLIFE CONSERVATION IN A SOIL CONSERVATION PROGRAM."

Sydney Franklin.

Hardly does a week pass, but that hundreds of landowners and tenants in rural communities throughout the country become acquainted with the various erosion control practices now being used by the Soil Conservation Service. From these new ideas there naturally arises many questions concerning various phases of this broad conservation program. Past experience shows that one of the most perplexing of these many questions concerns the status of wildlife conservation in relation to soil conservation.

That this should be puzzling is obvious, principally because there apparently exists no direct relationship between the two. However, while the Soil Conservation Service is primarily concerned with soil erosion control, it is, nevertheless, deeply concerned with a program of proper land utilization. In fact, it is this factor of proper land usage upon which the entire working plan is based. In other words, the organization attempts to assign to every acre of land on the farm that usage for which it is best suited. Very seldom is there any justification for any land remaining totally idle. Thus, herein lies the major justification for a wildlife program.

Since it is agreed by all who may be classed as authorities, that vegetation control is the most effective and practical, it should seem quite obvious that a consideration of our wildlife should be well in the fore wherever this type of work is performed. In other words, why should not those forms of vegetation be employed which besides being effective in erosion control are valuable as food or cover for some of the many forms of wildlife? Why should little idle spots on the farm be made a burden to the farmer when with very little effort and expense they can be made very advantageous as an improver of the farm environment?

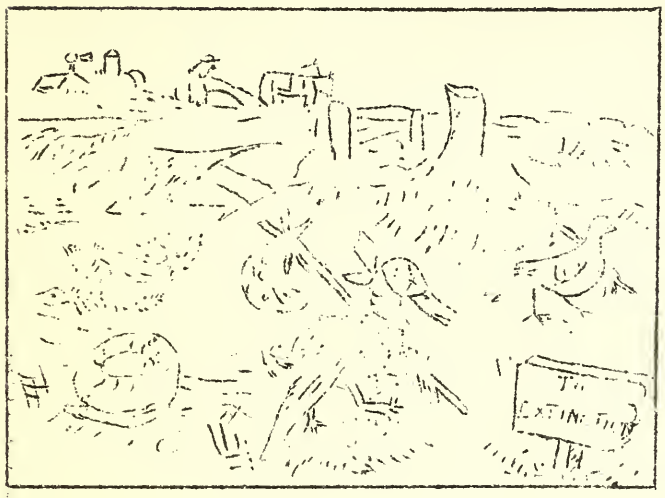
It should be remembered that idle land brings no revenue and therefore pays no taxes. Thus, those acres that are productive are burdened with the loads that ordinarily would fall upon the idle land.

The word "revenue" as used here, not only applies to the material, but also to the asthetic. This statement does not imply that there are no financial returns to be derived from a program of wildlife conservation. In fact, it can truthfully be said that of the many gains to be had, the economic gain is among the first in importance. However, that there is something real and worthwhile in the aesthetic benefits of wildlife, should not be considered lightly. A covey of quail, a number of song birds, some squirrels, or a family of opossums all add greatly to making the farm a more delightful place on which to live.

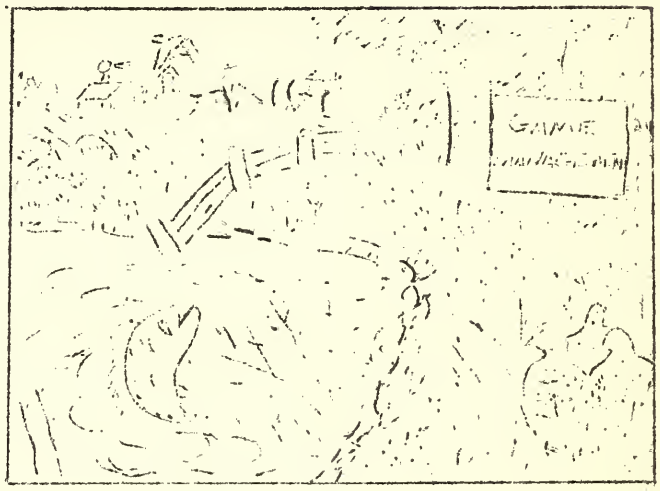
The joy and pleasure derived from a successful hunting or fishing trip can seldom be duplicated in any other field of sport. That the hunting problem is a major consideration in the recreational world of today is more than substantiated by examining reports of the staggering sums of money expended annually for guns, ammunition and hunting licenses. The figure is well in the millions and is on a continual increase yearly.

WHICH SHALL IT BE

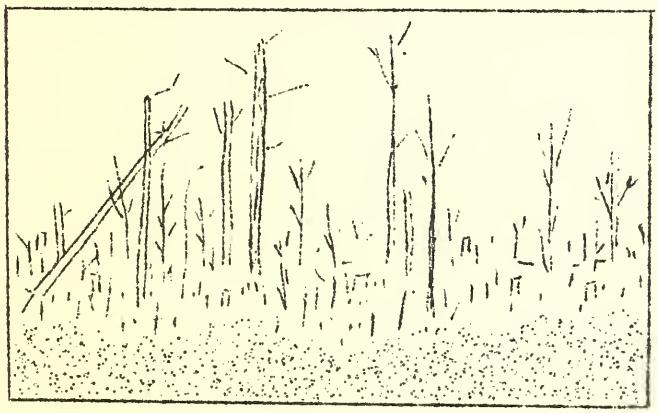
THIS OR THIS



Unless we all become conservation-minded, we can expect no game in the future. Farmers must improve the "living conditions" for wildlife on the farm. Hunters must adhere to the game laws and stop the present practice of unnecessary slaughter.



Every farm plan should consider wildlife. Hedgerows, ditch banks and brushy growths should not be cleared out. If year-around food and cover is made available, the farmers will soon see an influx of desirable birds; but without food and cover, all other management activities are useless.



Fire is the worst enemy of woodlots in the South. It not only kills young trees and retards the growth of older trees, but it encourages erosion, kills game, ruins recreational facilities, and makes the countryside unsightly.

The great majority of fires in this section are man-made. Carelessness with cigarettes and matches is the main contributor. A little more thought and care will more than repay us in the future. Let's bring back the pines!

The U. S. Department of Agriculture has conservatively estimated several million dollars as the value of insectivorous birds annually in destroying insects. This applies only to the damage done to our agricultural crops and makes no mention of damage to trees in our woodlots.

The Soil Conservation Service cannot afford to overlook the many gains that a program of wildlife conservation can offer the farmers. They cannot overlook the facts which show that if we are to have any desirable wildlife in the future, they must establish food and cover for the numerous desirable species. They can not be blind to the fact that upon their vegetative erosion control measures depends the future of wildlife in the region. Without proper food and cover, we can expect no game; without the proper dispersion and interrelationship of food and cover, we can expect no game. Food without cover is useless and vice versa. It can therefore readily be seen that unless expert consideration is given this topic, erosion control practices can be made not only useless as far as improving the farm environment is concerned, but also detrimental.

Modern methods of farming are constantly making "living conditions" less favorable for our game species. The idea of "clean-out" farming - that is cultivating all the land possible and cleaning up hedgerows and bushy growths has greatly reduced our wildlife population. Some of our forestry practices, too, are detrimental to wildlife in general. There has been, in the past, altogether too much cutting of hollow trees, persimmons, dogwoods and others that were formerly considered as weed trees. The Soil Conservation Service is striving at present to not only discourage such practices, but at the same time to incorporate in its work program measures to rectify the wrongs already done.

The work done for the benefit of wildlife conservation in the older demonstration areas is now showing definite results in a marked increase of quail and other desirable birds. Hunters report that they can readily obtain their bag limits in several hours time, and as a result there has been a large influx of hunters into the area. This immediately warns us that unless something is done regarding protection and education, the effectiveness of the entire planting program will be nullified. Another detrimental factor that invariably follows an increase in the bird population is predators. This also must be considered in a program as a whole. It therefore can be seen that the development of food and cover is only "half the battle." It must, in order to be effective, be immediately followed by a thorough educational program which stresses protection. This is exactly the type program upon which the Soil Conservation is now embarking.

The opportunities offered by the Soil Conservation Service in its many projects throughout the country for a successful program of wildlife conservation has never been equaled before. It would be almost an utter tragedy if the present opportunities were not made use of to the very best advantage.

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Crop Rotations

H. O. Beck

So much has been said recently about rotations that it is deemed advisable at this time to explain more fully some of the features of this practise. The purposes of crop rotations are numerous, among which are: the addition of organic matter to the soil, increasing the texture and activity of the soil bacteria organisms, thus allowing more water to penetrate into the soil, and causing less runoff. In this way the farmer has some control over the moisture condition of the soil, also in thick growing crops, the roots will bind the soil together and decrease sheet erosion. In rotating the field, the farmer can have something growing on his land almost all the time, and he will also distribute his labor throughout the year.

In a rotation there must be three kinds of crops; cash crops, supply crops, and soil building crops; the latter usually being a legume. A good practise for a three-year rotation is as follows:

1st year: cotton in the Spring, followed by small grain in the Fall.
2nd year: lespedeza seeded in small grain.
3rd year: lespedeza remaining.

The above rotation gives us four crops in three years, one of which is a cash crop, this being cotton, the small grain being a supply crop, and the lespedeza, the soil improvement crop.

Another good rotation is as follows:

1st year: cotton in the Spring, with oats and vetch in the Fall.
2nd year: corn in the Spring, wheat in the Fall.
3rd year: lespedeza seeded in the wheat in the Fall.
4th year: lespedeza remaining.

The above rotation gives six crops in four years; cotton and wheat being the two cash crops; the corn and lespedeza being the two supply crops, and the other lespedeza, oats and vetch being soil improvement crops.

In strip cropping, a rotation is carried on within a field, the strips are on the contour, and vary in width depending on the slope of the land. There are two types of strips commonly used; the broad strip, with or without terraces, and the narrow strip, either permanent or temporary. Experiments show that when strip cropping is used, under all conditions, that it will control 65% more erosion than when strips are not used.

Strips can sometime be used instead of terraces, although they have their limitations. In a strip rotation, experiments show that strip cropping reduces runoff and soil losses, and in this way control the soil moisture to a certain extent.

Strip cropping, to be more explicit, consists of planting strips of densely-growing or fibrous-rooted crops between strips of clean-tilled crops along the contour of the land. In controlling the great loss of soils, strip cropping plays a very important part. In fact, it is one of the best methods known of controlling soil erosion in a cultivated field.

RAMBLINGS IN FORESTRY

W. G. Patterson.

With the Spring planting season fast drawing to a close, the forestry department looks forward to the summer months when they will be busy making planting plans; surveying timber stand improvement plots; making a survey of the utilization of wood in the project area; collecting data necessary for the selection and adaptation of tables, formulae and silvicultural data relating to the principal species. The cruising of woodlands, which will be subject to recommended management, and the preparation of management plans for these individual woodlands will also be stressed.

Since the last of February, 145,216 trees of ten different species, have been planted on twenty-three farms. The acreage on these farms planted to trees range from one to fifteen acres and, at this time, 117.5 acres have been planted. The predominating species used in our activities were loblolly pine, black locust, pecan, white oaks & tulip poplar.

The unfavorable weather conditions we have been experiencing this Spring are entirely responsible for our not having a greater number of trees in the ground. The trees planted have had ideal weather in which to get established and we should, therefore, have a very high percentage of survival.

The coming of Spring brings to the woodlot owner two serious problems; fire, and the southern pine beetle. Fire, the greatest enemy to the forest can be held in check in this county, because here, man-made fires are the chief contributors. Never, under any circumstances, should the woods be burned expecting to improve the stand of timber, for the opposite is always the result. Many farmers are of the erroneous opinion that burning the woods improves its grazing capacity. It is a proven fact that the nourishment derived by cattle from grazing in the woods does not compensate for the damage done to the trees. Grass will not grow in a stand of timber undisturbed by man, because the crowns of the trees are close enough together so that the necessary light to permit the growth of grass will not reach the forest floor. Therefore, it should be evident that to obtain the maximum amount of growth in a stand of timber in the shortest period of time, the practice of grazing and burning must be discontinued. Grazing and burning are not conducive to a continuous supply of young tree reproduction that will replace the mature crop when ready for harvest.

Any evidence of the southern pine beetle in a stand of pines should be treated at once, before the warm weather sets in. Pines which have their foliage turning from brown to red in the top and which show pitch tubes on their trunks are infested. These trees should be removed and burned to prevent an outbreak and further infestation of the beetles.

The forestry department of the Soil Conservation Service will be only too glad to offer any assistance and advice possible in the care of farm woodlots. However, only with the assistance of the farmer can we carry on an effective forestry program. Do not hesitate, therefore, to "come up and see us sometime."

The A B C of Erosion Control.

John C. Shiver.

There are in this area many thousand acres of fertile soil on which special efforts should be made to prevent further washing in order to preserve its present fertility. It is a known fact that man has been largely responsible for the present extent of erosion, but likewise man has the power to reduce the soil washing to a minimum.

Soil washing and loss of fertility can be controlled to a large extent if the farmers of this area adopt a well rounded soil erosion control program.

First, the landowners must learn to appreciate the fact that the soil is the basic natural resource of the state; also that the soil is the source of all farm income. If the farmer places any investment of labor or capital in his soil to build it up and to preserve its fertility it naturally makes the land more valuable. Before one can inaugurate an effective erosion control program one must have a knowledge of and interest in good farm practices.

The plan should be so arranged that all steep slopes are maintained in permanent pasturs or timber. It should also be said that pastures that have been over-grazed and worn out will not check soil washing. A good thick sod of grass is necessary. The presence of trees on the land is inadequate for controlling erosion if the litter and organic matter is burned over and if grazing is permitted on the timber land. Slopes as much as 10% or more should not be cultivated. Even slopes of 20% are generally too steep for pasture grasses to hold the soil unless a well managed system of grazing is carried out. Slopes over 15% or more can more profitably be kept in timber. The type of soil will determine to a large extent whether a particular field should be kept in pasture or trees.

A system of crop and soil management should be adopted to maintain the soil in a high state of fertility. This can be most effectively carried out by the use of a good rotation including a soil-building legume.

It is a known fact that the continuous growing of a cultivated crop without including a green manure crop will eventually decrease the humus content of the soil. Therefore it follows, that as the humus and fertility of the soil is decreased, its susceptibility to soil washing increases. Scientific data indicates that the more humus there is in a soil, the greater its porosity and ability to absorb rainfall. This in turn tends to cause granulation of the soil and thereby helps to resist the erosive action of water. It has been shown that erosion on a rather gentle slope is five times greater in a corn field where corn has followed corn than in an adjacent field where corn has followed a legume crop.

A satisfactory terracing program should be planned for the various cultivated fields. Wherever there is land without a slope there is sure to be a certain amount of erosion taking place. The purpose of a terrace is to control the amount and rate of water leaving the field, thereby retarding or decreasing the movement of the soil down the slope. The amount of soil that is moved between terraces is saved by being deposited in the terrace channels.

It is known that a good crop rotation alone will not control erosion; likewise, terraces alone are in most cases insufficient to completely stop soil washing.

The most paying investment that a farmer can indulge in comprises a system of terraces, with good farming practices between them.

It is important to practice gully control at all times. Many fields have been ruined by gullies that have been allowed to grow undisturbed until they have become very numerous and deep, making control most difficult. It takes only a few years for a gully to ruin a field for future cultivation. Gullies should be attended to when they are small because they can be more easily controlled at that time.

Row crops should be planted across the slopes rather than up and down slopes. It is quite plain that if corn or cotton is planted across the slope, the rows, or ridges, left by the cultivation will decrease the amount of runoff. It is a good practice to have the rows follow the contours, especially in fields where terraces are designed. This practice we call contour tillage.

The practice of running rows of cultivated crops across the slopes in bands alternating with bands of thick-growing crops, such as lespedeza, alfalfa, etc., is known as strip cropping. The soil that will wash from the corn strip will be caught by the thick-growing crop. The combination of strip cropping and terracing offers an opportunity to make the best use of the soil on all of our sloping fields in this area.

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"A CONTINUANCE of the manner in which the soil, the mainstay of individual and collective life, is now being squandered in the United States has left it to less than one hundred years of virile national existence. If we are to win out against the accelerated progress of this gangrenous growth of soil erosion, then we have less than twenty years to build up the techniques, to recruit the fighting personnel and, most difficult of all, to change the attitudes of millions of people who hold that ownership of land carries with it the right to mistreat, and even to destroy their land, regardless of the effect on the total national estate." *

*Morris L. Cooke, consulting engineer, at the annual convention of the American Water Works Association.

METEOROLOGICAL INFORMATION

The past winter has undoubtedly been one of the most severe in many years. Continual snowstorms coupled with cold weather and constant rains have made field work practically impossible. As a matter of interest, the following figures have been compiled by the U. S. Weather Bureau in Charlotte, N. C. and are presented here.

Station: Charlotte, N. C. Month: March, 1936.

Date	Temp. °F. Max.	Min.	Precip. in.* Mid. to Mid.	Wind - Max. Vel. mph	Per cent sunshine	Ave. Cloudiness daylight (0-10)
1	60	42	0	14	65	9
2	57	37	.08	13	74	6
3	63	45	.04	15	82	6
4	66	45	0	14	83	9
5	67	52	.11	11	57	7
6	61	42	0	13	100	0
7	65	42	0	11	100	0
8	66	40	0	10	100	0
9	67	43	T	10	84	8
10	56	54	1.12	21	0	10
11	67	53	.05	16	47	9
12	59	38	.03	27	52	7
13	61	37	0	21	100	0
14	70	45	0	22	95	1
15	71	46	0	16	100	6
16	74	55	.86	17	32	9
17	64	32	1.66	27	0	10
18	43	33	0	17	55	5
19	59	34	0	12	78	6
20	53	39	.16	26	3	10
21	55	36	0	29	100	2
22	66	38	0	13	86	4
23	64	50	0	12	14	10
24	76	54	.48	30	51	8
25	67	54	.01	15	14	10
26	64	54	1.37	14	10	10
27	71	48	1.02	18	23	10
28	68	50	.09	11	92	2
29	68	46	0	12	89	8
30	77	51	0	15	86	3
31	83	62	.04	13	57	6

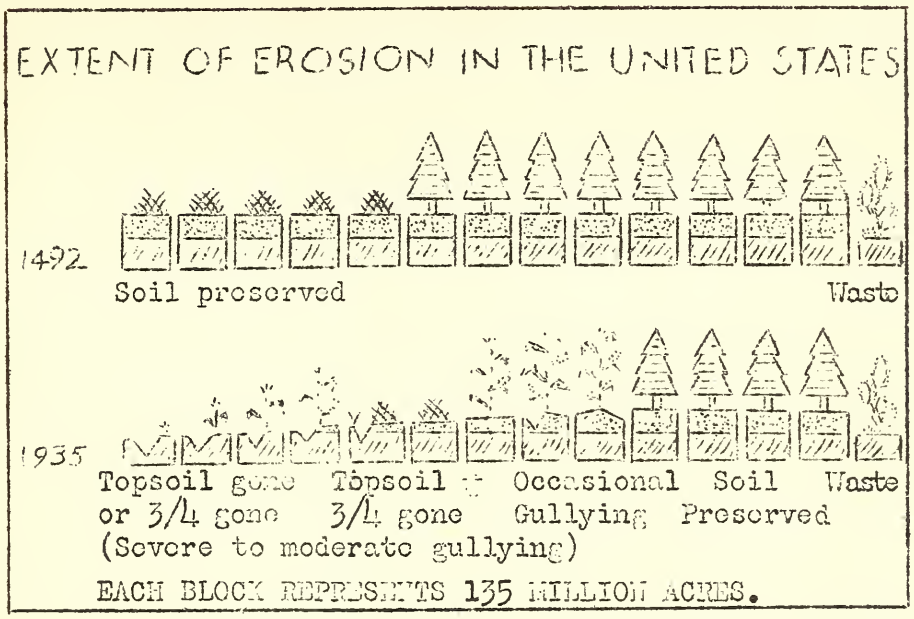
*"T" - Trace, amount too small to measure.

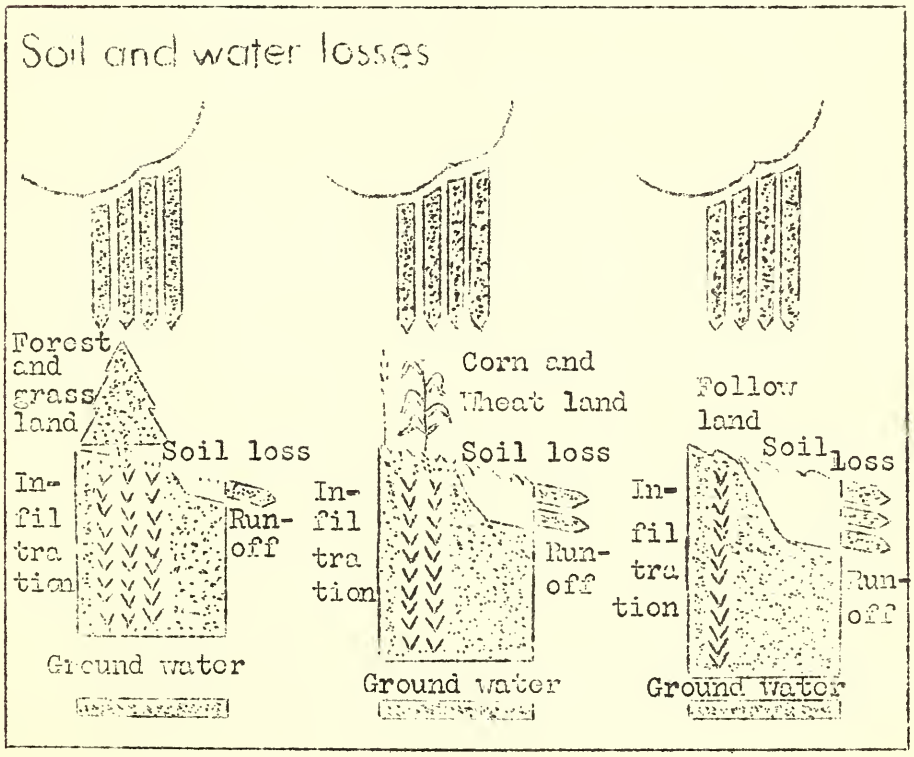
The precipitation figures for the first 15 days in April are as follows:

1	1.03	6	3.84	11	0
2	1.24	7	.54	12	T
3	T	8	0	13	T
4	0	9	.88	14	0
5	1.66	10	.07	15	0

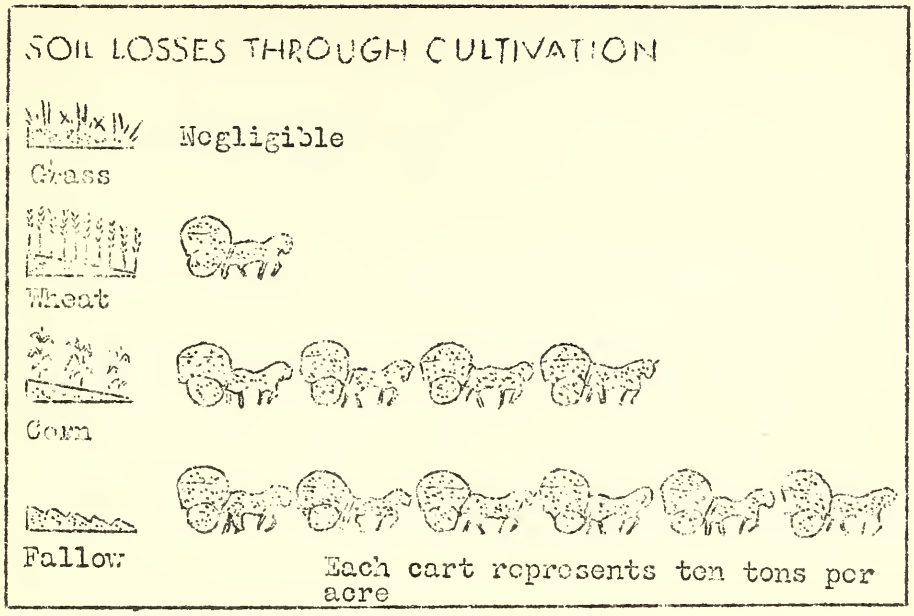
The maximum intensity during this period was 2.25 inches in 4 hours or 0.56 inches per hour. The excess for the year as of April 15th, is 17.34 inches.

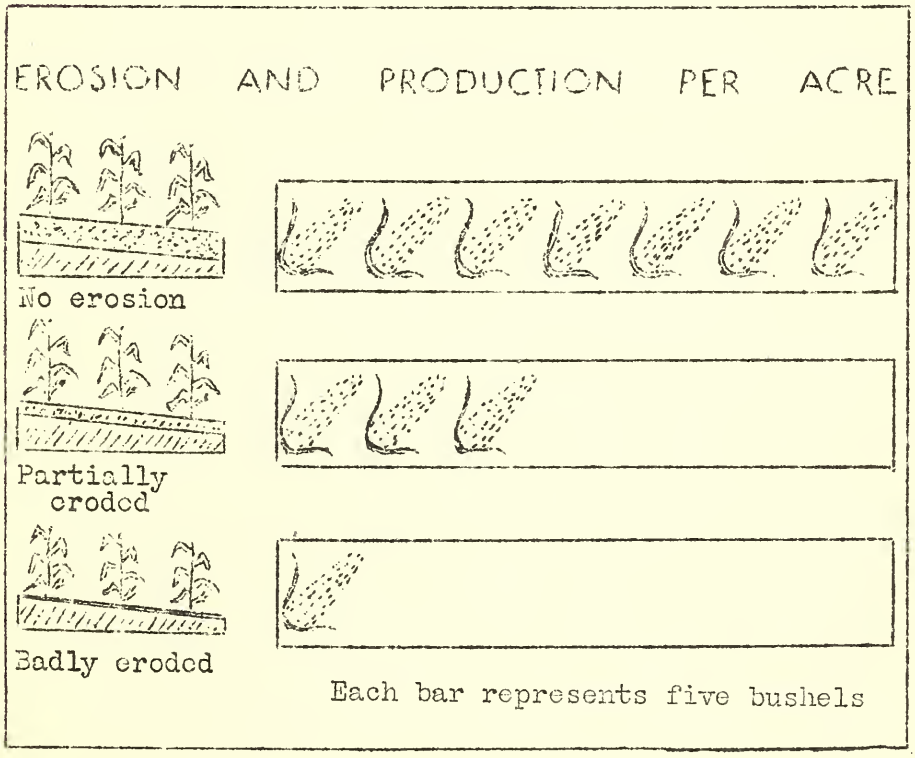
FACTUAL DITTIES





MORE FACTUAL DITTIES





(Thanks to Pearson's LITTLE WATERS for all Ditties).

"SOIL DEPARTMENT NOTES."

R. C. Pleasants.

In the Huntersville Demonstration Area a detailed soil erosion survey has been made of 92 farms comprising 6,272 acres of open land. The purpose of this survey is to furnish the necessary information to enable the agreement man, together with the farmer, to formulate a well-balanced erosion control program. This soil survey presents a picture of the existing conditions on the farm, including degree of sheet and gully erosion, slope of the land, present land use, and soil type. With this information the agreement man can immediately determine the most advantageous use for each acre of land. For instance, some soils, as Iredell and Wilkes will not stand terracing due to their unfavorable physical properties, and similarly, other soils such as Congaree and Davidson are particularly suitable for corn production. Thus, it can be seen that various soils are adapted to widely different crops, and, likewise, different soils vary in the ease with which they erode. This naturally means that the erosion control measures must be varied accordingly. For these reasons, when the agreement man recommends that a field be returned to trees or pasture or that a field be strip-cropped, or planted to lespedeza, he does so only because he knows that these particular treatments are in accord with the needs of the land.

About two weeks ago, aerial photographs of our area were taken. When these arrive, sometime in the near future, the farmers will get a chance to see what their farms look like from three miles in the air. These aerial maps will greatly aid the soils man in that he will be able to map several times the acreage per day that he could previously. From the aerial photographs one can easily detect houses, roads, streams, fields, forests, gullies, fences, and other land marks. In most instances the maps will also show small sawdust piles, existing terraces, and the extremities of pine and hardwood stands of timber.

The results of the soil survey on the farms mapped to date show that the majority of our soils have lost from 50 to 75% of their top soil by accelerated erosion. The very best erosion control practices available must be applied now and continued on these soils if we expect to cultivate them profitably in the years to come.

Experiments prove convincingly that it takes just seven years under continuous corn cultivation for one inch of soil to be eroded away. It takes nature, on the other hand, not less than 400 years to build one single inch of the priceless top soil of our average soil. The plant food removed from the fields and pastures in this country every year by erosion is at least twenty-one times more than that removed by the crops harvested. That part taken in by crops can be restored in the form of fertilizer, but that taken by erosion cannot be restored, because this malevalent process takes the whole body of the soil, plant food and all. Soil impoverished strictly by plant food depletion, as sometimes results from continuous growing of the clean-tilled crops, is not worn-out land; the only worn-out land that we have is that which has been so badly washed that it would be entirely futile to undertake its reclamation.

If you are interested in setting up a soil conservation program on your farm, detach this page, fill it in, and send it to:

U. S. Department of Agriculture
Soil Conservation Service
Charlotte, North Carolina

Date _____

I am interested in setting up a soil conservation program on my farm and wish to cooperate with my neighbors in carrying out this work in my community. Therefore, as a resident of the Huntersville Soil Conservation Demonstrational Area, I request you to have the Soil Conservation Service agents come to my farm and cooperate with me in working out this program.

My farm is located on _____ road (or highway)

_____ miles _____ of _____.
(direction) (school, church, or center)

Acres: Cultivated _____ forest _____ pasture _____ Improved pasture _____

_____ abandoned _____ total _____.

PRESENT CROPS

Acres: Cotton _____ corn _____ wheat _____ oats _____ barley _____

rye _____ forage _____ others _____.

LIVESTOCK

Workstocks _____ cows _____ yearlings _____ hogs _____ hens _____

others _____.

IMPLEMENTS

Hand seeders _____ tractors _____ terracing machines _____ V-drag _____

drill seeders _____.

NAME _____

ADDRESS _____

TENANT _____

ADDRESS _____

UNITED STATES
DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Charlotte, N.C.

Penalty for Private Use
To Avoid Payment of
Postage, $300.

Official Business.

COOPERATION + CROP ROTATION + PERSPIRATION = CONSERVATION